

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-000324**Date Inspected:** 23-Jul-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 800**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Xu Bing and Huang Wei**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** N/A**Summary of Items Observed:**

The CALTRANS Quality Assurance (QA) Inspector, Alfredo Acuna was present for the welding qualification testing pertinent for the welding qualification records (PQRs) PQR HP2007248-2, PQR HP2007146-2 scheduled for this project. ZPMC, welder Zhu Hai Ping was observed by the QA Inspector performing welding operations following the preliminary welding procedure specification PWPS-B-T-3112 (fillet) or the PQR identified as HP2007146-2. Base metal was designated as A-709 Grade HPS485WT2/Z (Heat # 07101250N). ZPMC followed the Fillet weld WPS qualification criteria AWS 5.5 Subsection 5.10 using the shielded metal arc welding (SMAW) process in the vertical (3F) position with the 4.0 mm diameter electrode designated as E9018M-H4R, brand name Excalibur. The QA Inspector verified amperages, voltages, travel speeds, preheat and heat interpass temperatures. The QA inspector witnessed the single pass on one side and the multiple passes (2) on the opposite side of the Tee joint. The QA inspector performed random verifications of the welding parameters for a total of 3 passes. The QA inspector found that the welding parameters taken by Quality Control (QC) inspector Xu Bing appeared to be accurate and in accordance with the contract documents.

The QA inspector performed a final visual inspection and observed that the weld reinforcement appeared to be in compliance with the contract documents. Caltrans lot # B71-046-07 was assigned to this PQR testing.

ZPMC, welder Zhu Hai Ping was observed by the QA Inspector performing welding operations following the preliminary welding procedure specification PWPS-B-T-2134 (fillet) or the PQR identified as HP2007248-2.

Base metal was designated as A-709 Grade 50-T-2 (Heat # 07200455020202). ZPMC followed the Fillet weld WPS qualification criteria AWS D 1.5 Subsection 5.10 using the flux cored arc welding (FCAW) process in the overhead (4F) position with the 1.4 mm diameter electrode designated as E71T-1, brand name Supercored 71H.

The QA Inspector verified amperages, voltages, travel speeds, preheat and heat interpass temperatures. The QA inspector witnessed the single pass on one side and the multiple passes (3) on the opposite side of the Tee joint.

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The QA inspector performed random verifications of the welding parameters for a total of 4 passes. The QA inspector found that the welding parameters taken by Quality Control (QC) inspector Xu Bing appeared to be accurate and in accordance with the contract documents.

The QA inspector performed a final visual inspection and observed that the weld reinforcement appeared to be in compliance with the contract documents. Caltrans lot # B71-045-07 for was assigned for this PQR testing.

Summary of Conversations:

The QA inspector did not have any significant conversation on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Acuna,Alfredo	Quality Assurance Inspector
Reviewed By:	McClary,David	QA Reviewer
